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Sheet	1	of	9
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Application Number	09/966,768
Filing Date	September 28, 2001
First Named Inventor	Derek van der Kooy
Group Art Unit	1636
Examiner Name	Daniel M. Sullivan
Attorney Docket Number	Bereskin & Parr

U.S. PATENT DOCUMENTS

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DS		Y. Benninger et al. "Differentiation and Histological Analysis of Embryonic Stem Cell-Derived Neural Transplants in Mice." Brain Pathology 10 pp 330-341 (2000).	
		I L. Weissman. "Translating Stem and Progenitor Cell Biology to the Clinic: Barriers and Opportunities. Science, Vol. 287, February 25, 2000.	
		P.J. Donovan & J. Gearhart. "The end of the beginning for pluripotent stem cells." Nature, Vol. 414, November 1, 2001, pp 92-97.	
		C.H. Waddington and G.A. Schmidt. "Induction by Heteroplastic Grafts of the Primitive Streak in Birds." Roux's Arch. EntwMech. Org. 128, (1933) pp 522-563.	
		G. R. Martin et al. "The Development of Cystic Embryoid Bodies in Vitro from Clonal Teratocarcinoma Stem Cells." Developmental Biology 61, pp 230-244 (1977).	
		R.S.P. Beddington and E.J. Robertson. "An assessment of the developmental potential of embryonic stem cells in the midgestation mouse embryo." Development 105, (1989) pp 733-737.	
DS		J.M. Oppenheimer. "Structures Developed in Amphibians by Implantation of Living Fish Organizer." Proc. Soc. Exp. Biol. Med. 34, (1936) pp 481-483.	
No Statement of relevance		H. Spemann and H. Mangold. "Über Induktion von Embryonalanlagen durch Implantation artfremder Organisatoren." Arch. Mikr. Anat. EntwMech. 100, (1924) pp 659-693.	
DS		M.V. Wiles and B. M. Johansson. "Analysis of Factors Controlling Primary Germ Layer Formation and Early Hematopoiesis Using Embryonic Stem Cell in Vitro Differentiation." Leukemia 11 (S3)m (1997) pp 454-456.	
		B.A. Reynolds et al. "A Multipotent EGF-Responsive Striatal Embryonic Progenitor Cell Produces Neurons and Astrocytes." The Journal of Neuroscience, November 1992 12(11), pp 4565-4574.	
		J. Nichols et al. "Derivation of Germine Competent Embryonic Stem Cells with a Combination of Interleukin-6 and Soluble Interleukin-6 Receptor." Experimental Cell Research 215, pp 237-239 (1994).	
		M.J. Evans and M.H. Kaufman. "Establishment in culture of pluripotential cells from mouse embryos." Nature, Vol. 292, July 9, 1981, pp 154-156.	
		A. Nagy and J. Rossant. "Production of completely ES cell-derived fetuses." In Gene targeting: a practical approach (ed. A.L. Joyner), pp 147-179, IRL Press, Oxford, UK.	
		C.G. Bellows and J.E. Aubin. "Determination of Numbers of Osteoprogenitors Present in Isolated Fetal Rat Calvaria Cells in Vitro." Developmental Biology 133, pp 8-13 (1989).	
DS		H. Kawasaki et al. "Induction of midbrain dopaminergic neurons from ES cells by stromal cell-derived inducing activity." Neuron 28, pp 31-40.	

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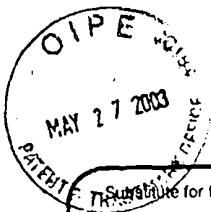
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Group Art Unit	1636
Examiner Name	Daniel M. Sullivan
Attorney Docket Number	Bereskin & Parr

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DS		J.J. Otero et al. "Cell-cell contact regulates commitment by cultured embryonic stem cells." Society for Neuroscience Abstracts, Vol. 27, No. 1, p 341, 2001.	
		S. Taraviras et al. "Characterization of the mouse HNF-4 gene and its expression during mouse embryogenesis." Mechanisms of Development 48 (1994) pp 67-79.	
		M. Li et al. "Essential function of LIF receptor in motor neurons." Nature, vol. 378, Dec 14, 1995, pp 724-727.	
		Y. Nakamura et al. "The bHLH Gene <i>Hes1</i> as a Repressor of the Neuronal Commitment of CNS Stem Cells." The Journal of Neuroscience, Jan 1, 2000, 20(1) pp 283-293.	
		D. Martens et al. "Separate Proliferation Kinetics of Fibroblast Growth Factor-Responsive and Epidermal Growth Factor-Responsive Neural Stem Cells within the Embryonic Forebrain Germinal Zone." The Journal of Neuroscience, Feb 1, 2000, 20(3), pp 1085-1095.	
		A. Fainsod et al. "The dorsalizing and neural inducing gene <i>folistatin</i> is an antagonist of <i>BMP-4</i> ." Mechanisms of Development 63 (1997), pp 39-50.	
		S. Weiss et al. "Is there a neural stem cell in the mammalian forebrain?" TINS Vol. 19, No. 9, 1996, pp 387-393.	
		R. Harland and J. Gerhart. "Formation and Function of Spemann's Organizer." Annu. Rev. Cell Dev. Biol., 1997, 13 pp 611-667.	
		J. Conover et al. "Ciliary neurotrophic factor maintains the pluripotentiality of embryonic stem cells." Development 119, pp 559-565 (1993).	
		G. R. Martin. "Isolation of a pluripotent cell line from early mouse embryos cultured in medium conditioned by teratocarcinoma stem cells." Proc. Natl. Acad. Sci. USA, Vol. 78, No. 12, pp. 7634-7638, December 1981.	
		A. Nagy et al. "Derivation of completely cell culture-derived mice from early-passage embryonic stem cells." Proc. Natl. Acad. Sci. USA, Vol. 90, no. 18, pp 8424-8428, September 1993.	
		T. Lamb et al. "Neural Induction by the Secreted Polypeptide Noggin." Science Vol. 282, Oct 29, 1993, pp 713-718.	
		B. Reynolds and S. Weiss. "Generation of Neurons and Astrocytes from Isolated Cells of the Adult Mammalian Central Nervous System." Science, Vol. 255, pp 1707-1710, March 1992.	
		D. van der Kooy and S. Weiss. "Why Stem Cells?" Science Vol. 287, Feb 25, 2000, pp 1438-1441.	
DS		R. L. Williams et al. "Myeloid leukaemia inhibitory factor maintains the developmental potential of embryonic stem cells." Nature Vol. 336, Dec. 15, 1988, pp 684-687.	

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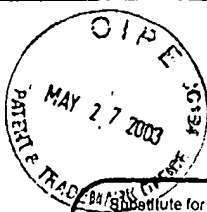
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Sheet 4 of 9

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Filing Date	September 28, 2001
First Named Inventor	Derek van der Kooy
Group Art Unit	1636
Examiner Name	Daniel M. Sullivan
Attorney Docket Number	Bereskin & Parr

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DS		D. G. Wilkinson et al. "Segmental expression of Hox-2 homeobox-containing genes in the developing mouse hindbrain." Nature Vol. 341, Oct. 5, 1989, pp 405-409.	
		W. S. Smith et al. "Secreted noggin protein mimics the Spemann organizer in dorsalizing <i>Xenopus</i> mesoderm." Nature vol. 361, Feb 11, 1993, pp 547-549.	
		A. Simeone et al. "Nested expression domains of four homeobox genes in developing rostral brain." Nature Vol. 358, Aug 20, 1992, pp 687-690.	
		Y. Sasai et al. "Regulation of neural induction by the Chd and Bmp-4 antagonistic patterning signals in <i>Xenopus</i> ." Nature Vol. 376, July 27, 1995, pp 333-338.	
		A. Hemmati-Brivanlou & D. A. Melton. "A truncated activin receptor inhibits mesoderm induction and formation of axial structures in <i>Xenopus</i> embryos." Nature Vol. 359, Oct. 15, 1992, pp 809-814.	
		P. A. Hoodless and A. Hemmati-Brivanlou. "Inhibitory control of neural differentiation in mammalian cells." Dev. Genes Evol (1997) 207 pp 19-28.	
		P. A. Wilson et al. "Concentration-dependent patterning of the <i>Xenopus</i> ectoderm by BMP4 and its signal transducer Smad1." Development 124, pp 3177-3184 (1997).	
		G. Oliver et al. "Six3, a murine homologue of the sine oculis gene, demarcates the most anterior border of the developing neural plate and is expressed during eye development." Development 121, pp 4045-4055 (1995).	
		Y. Grinblat et al. "Determination of the zebrafish forebrain: induction and patterning." Development 125, pp 4403-4416 (1998).	
		J. L. de la Pompa et al. "Conservation of the Notch signaling pathway in mammalian neurogenesis." Development 124, pp 1139-1148 (1997).	
		B. G. Ciruna et al. "Chimeric analysis of fibroblast growth factor receptor-1 (Fgfr1) function: a role for FGFR1 in morphogenetic movement through the primitive streak." Development 124, pp 2829-2841 (1997).	
		D. Acampora et al. "Visceral endoderm-restricted translation of <i>Otx1</i> mediates recovery of <i>Otx2</i> requirements for specification of anterior neural plate and normal gastrulation." Development 125, pp 5091-5104 (1998).	
		R.S.P. Beddington "Induction of a second neural axis by the mouse node." Development 120, pp 613-620, (1994).	
		R.S.P. Beddington et al. "Brachyury - a gene affecting mouse gastrulation and early organogenesis." Development 1992 Supplement, pp 157-165 (1992).	
DS		T.P. Yamaguchi et al. "fgfr-1 is required for embryonic growth and mesodermal patterning during mouse gastrulation." Genes & Development 8, pp 3032-3044, 1994.	

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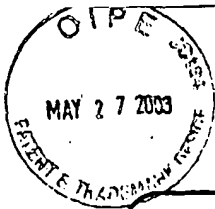
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Sheet 5 of 9

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Examiner Name	Daniel M. Sullivan
Attorney Docket Number	Bereskin & Parr

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PS		J. Li et al. "Mammalian hepatocyte differentiation requires the transcription factor HNF-4α." Genes & Development 14, pp 464-474, 2000.	
		S. Hoppler et al. "Expression of a dominant-negative Wnt blocks induction of MyoD in <i>Xenopus</i> embryos." Genes & Development 10, pp 2805-2817, 1996.	
		G. Friedrich and P. Soriano. "Promoter traps in embryonic stem cells: a genetic screen to identify and mutate developmental genes in mice." Genes & Development 5, pp 1513-1523, 1991.	
		V. Tropepe et al. "Distinct Neural Stem Cells Proliferate in Response to EGF and FGF in the Developing Mouse Telencephalon." Developmental Biology 208, pp 186-188, 1999.	
		B.A. Reynolds and S. Weiss. "Clonal and Population Analyses Demonstrate That an EGF-Responsive Mammalian Embryonic CNS Precursor Is a Stem Cell." Developmental Biology 175, pp 1-13, 1998.	
		J.L. Wrana. "Regulation of Smad Activity." Cell, Vol. 100, pp 189-192, Jan 21, 2000.	
		U. Lendahl et al. "CNS Stem Cells Express a New Class of Intermediate Filament Protein." Cell, Vol. 60, pp 585-595, February 23, 1990.	
		G. Bain et al. "Embryonic Stem Cells Express Neuronal Properties <i>in Vitro</i> ." Developmental Biology 168, pp. 342-357 (1995).	
		S. Okabe et al. "Development of neuronal precursor cells and functional postmitotic neurons from embryonic stem cells <i>in vitro</i> ." Mechanisms of Development 59 (1996), pp 89-102.	
		S. Piccolo et al. "Dorsoventral Patterning in <i>Xenopus</i> : Inhibition of Ventral Signals by Direct Binding of Chordin to BMP-4." Cell, Vol. 86, pp 589-598, August 23, 1998.	
		L.B. Zimmerman et al. "The Spemann Organizer Signal noggin Binds and Inactivates Bone Morphogenetic Protein 4." Cell, Vol. 86, 599-606, August 23, 1998.	
		E. Coucouvanis and G.R. Martin. "BMP signaling plays a role in visceral endoderm differentiation and cavitation in the early mouse embryo." Development 126, pp 535-546, (1999).	
		S. Piccolo et al. "The head inducer Cerberus is a multifunctional antagonist of Nodal, BMP and Wnt signals." Nature Vol. 397, Feb 25, 1999, pp. 707-710.	
		J.J.H. Pearce et al. "A Mouse Cerberus/Dan-Related Gene Family." Developmental Biology 209, pp 98-110 (1999).	
PS		A. Streit and C.D. Stern. "Neural induction a bird's eye view." TIG, January 1999, Vol. 15, No. 1, pp 20-24.	

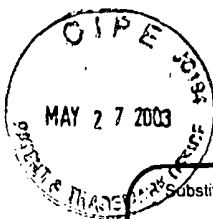
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DS		A. Streit et al. "Chordin regulates primitive streak development and the stability of induced neural cells, but is not sufficient for neural induction in the chick embryo." Development 125, pp 507-519 (1998)	
		H. Grunz and L. Tacke. "Neural differentiation of <i>Xenopus laevis</i> ectoderm takes place after disaggregation and delayed reaggregation without inducer." Cell Differentiation and Development, 28 (1989), pp 211-218.	
		C. Sirard et al. "The tumor suppressor gene <i>Smad4/Dpc4</i> is required for gastrulation and later for anterior development of the mouse embryo." Genes & Development 12, pp 107-119, 1998.	
		J. A. Belo et al. "Cerberus-like is a secreted factor with neuralizing activity expressed in the anterior primitive endoderm of the mouse gastrula." Mechanisms of Development 68 (1997) pp 45-57.	
		S. M. Sato and T. D. Sargent. "Development of Neural Inducing Capacity in Dissociated <i>Xenopus</i> Embryos." Developmental Biology 134, pp 263-266 (1989).	
		B. M. Johansson and M. V. Wiles. "Evidence for Involvement of Activin A and Bone Morphogenetic Protein 4 in Mammalian Mesoderm and Hematopoietic Development." Molecular and Cellular Biology, Jan 1995, pp 141-151.	
		P. A. Wilson and A. Hemmati-Brivanlou. "Induction of epidermis and inhibition of neural fate by Bmp-4." Nature, Vol. 376, July 27, 1995, pp 331-336.	
		S.F. Godsave and J.M. W. Slack. "Single cell analysis of mesoderm formation in the <i>Xenopus</i> embryo." Development 111, pp 523-530 (1991).	
		A. Gliinka et al. "Head induction by simultaneous repression of Bmp and Wnt signaling in <i>Xenopus</i> ." Nature, Vol. 389, October 2, 1997, pp 517-519.	
		A. Hemmati-Brivanlou and D. Melton. "Vertebrate Neural Induction." Annu. Rev. Neurosci., 1997, 20, pp 43-60.	
		M. F. A. Finley et al. "BMP-4 Inhibits Neural Differentiation of Murine Embryonic Stem Cells." Jon Wiley & Sons, Inc. J. Neurobiol 40, pp 271-287, 1999	
		D. Bachiller et al. "The organizer factors Chordin and Noggin are required for mouse forebrain development." Nature, Vol. 403, February 10, 2000, pp 658-661.	
		T. Bouwmeester et al. "Cerberus is a head-inducing secreted factor expressed in the anterior endoderm of Sepmann's organizer." Nature, Vol. 382, August 15, 1996, pp 595-601.	
DS		T. Tohyama et al. "Nestin Expression in Embryonic Human Neuroepithelium and in Human Neuroepithelial Tumor Cells." Laboratory Investigation, Vol. 66, No. 3, pp 303-313, 1992.	
		S. Fedoroff et al. "Microglia and Astroglia Have a Common Progenitor Cell." Journal of Neuroscience Research 50, pp 477-486 (1997).	

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DS		I. L. Weissman. "Stem Cells: Units of Development, Units of Regeneration, and Units in Evolution." Cell, Vol. 100, pp 157-168, January 7, 2000.	
		S. J. Morrison et al. "Regulatory Mechanisms in Stem Cell Biology." Cell, Vol. 88, pp 287-298, February 7, 1997.	
		A. Simeone et al. "Two vertebrate homeobox genes related to the <i>Drosophila empty spiracles</i> gene are expressed in the embryonic cerebral cortex." The EMBO Journal, Vol. 11, No. 7, pp 2541-2550, 1992.	
		C. S. Potten and M. Loeffler. "Stem cells: attributes, cycles, spirals, pitfalls and uncertainties. Lessons for and from the Crypt." Development 110, pp 1001-1020 (1990).	
		D. L. Clarke et al. "Generalized Potential of Adult Neural Stem Cells." Science, Vol. 288, pp 1660-1663, June 2, 2000.	
		A. Hemmati-Brivanlou and D. A. Melton. "Inhibition of Activin Receptor Signaling Promotes Neuralization in <i>Xenopus</i> ." Cell, Vol. 77, pp 273-281, April 22, 1994.	
		R. S. P. Beddington and E. J. Robertson. "Axis Development and Early Asymmetry in Mammals." Cell, Vol. 98, pp 195-209, January 22, 1999.	
		A. G. Smith et al. "Inhibition of pluripotent embryonic stem cell differentiation by purified polypeptides." Nature, Vol. 336, December 15, 1988, pp 688-690.	
		C. Strubing et al. "Differentiation of pluripotent embryonic stem cells into the neuronal lineage in vitro gives rise to mature inhibitory and excitatory neurons." Mechanisms of Development 53 (1995) pp 275-287.	
		A. Fraichard et al. "In vitro differentiation of embryonic stem cells into glial cells and functional neurons." Journal of Cell Science 108, pp 3181-3188 (1995).	
		W. L. Stanford et al. "Expression Trapping: Identification of Novel Genes Expressed in Hematopoietic and Endothelial Lineages by Gene Trapping in ES Cells." Blood, Vol. 92, No. 12, December 15, 1998, pp 4622-4631.	
		J. Nichols et al. "Formation of Pluripotent Stem Cells in the Mammalian Embryo Depends on the POU Transcription Factor Oct4." Cell, Vol. 95, pp 379-391, October 30, 1998.	
		U. Koshimizu et al. "Functional requirement of gp130-mediated signaling for growth and survival of mouse primordial germ cells in vitro and derivation of embryonic germ (EG) cells." Development 122, pp 1235-1242, (1996)	
DS		C. Dani et al. "Paracrine Induction of Stem Cell Renewal by LIF-Deficient Cells: A New ES Cell Regulatory Pathway." Developmental Biology 203, pp 149-162 (1998).	
		A. G. Elefanti et al. "Hematopoietic-Specific Genes Are Not Induced During In Vitro Differentiation of <i>scl</i> -Null Embryonic Stem Cells." Blood, Vol. 90, No. 4, August 15, 1997, pp 1435-1447.	

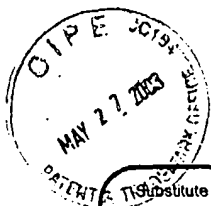
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Sheet 8 of 9

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Application Number	09/966,768
Filing Date	September 7, 2001
First Named Inventor	Derek van der Kooy
Group Art Unit	1636
Examiner Name	Daniel M. Sullivan
Attorney Docket Number	Bereskin & Parr

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JS		R. J. Arceci, et al. "Mouse GATA-4: a Retinoid Acid-Inducible GATA-Binding Transcription Factor Expressed in Endodermally Derived Tissues and Heart." Molecular and Cellular Biology, April 1993, pp 2235-2248.	
		O Brüstle et al. "Embryonic Stem Cell-Derived Glial Precursors: A Source of Myelinating Transplants." Science, Vol. 285, July 30, 1999, pp. 754-758.	
		M. George-Weinstein et al. "Skeletal Myogenesis: The Preferred Pathway of Chick Embryo Ephiblast Cells in Vitro." Developmental Biology 173, pp 279-291 (1998).	
		A-K. Hadjantonakis et al. "Generating green fluorescent mice by germline transmission of green fluorescent ES cells." Mechanisms of Development 76, (1998), pp 79-90.	
		M. F. Mehler and J.A. Kessler. "Hematolymphopoietic and inflammatory cytokines in neural development." TINS, Vol. 20, No. 8, 1997, pp 357-365.	
		T.C. Doetschman et al. "The <i>in vitro</i> development of blastocyst-derived embryonic stem cell lines: formation of visceral yolk sac, blood islands and myocardium." J. Embryol. exp. Morph. 87, pp 27-45, (1985).	
		T. Kishimoto et al. "Cytokine Signal Transduction." Cell, Vol. 76, pp 253-282, January 28, 1994.	
		E. Coucouvanis and G. R. Martin. "Signals for Death and Survival: A Two-Step Mechanism for Cavitation in the Vertebrate Embryo." Cell, Vol. 83, pp 279-287, October 20, 1995.	
		B. J. Chasson et al. "Adult mammalian forebrain ependymal and subependymal cells demonstrate proliferative potential but only subependymal cells have neural stem cell characteristics." J. Neurosci. 19, pp 4462-4471.	
		K.S. O'Shea. "Embryonic stem cell models of development." Anat. Rec. (New Anat.) 257, 32-41, 1999.	
		R.M. Seaberg et al. "Neural determination genes revealed by expression trapping in embryonic stem cells." Soc. Neurosci. Abst. 25, p 527, 1999.	
		J. Yamashita et al. "Flk1-positive cells derived from embryonic stem cells serve as vascular progenitors." Nature, Vol. 408, pp 92-96, Nov 2, 2000.	
		J. W. McDonald et al. "Transplanted embryonic stem cells survive, differentiate and promote recovery in injured rat spinal cord." Nature Medicine, Vol. 5, No. 12, pp 1410-1412, Dec 1999.	
		M. Yang et al. "Neural Stem Cells Spontaneously Express Dopaminergic Traits after Transplantation into the Intact or 6-Hydroxydopamine-Lesioned Rat." Experimental Neurology, Vol. 177, pp 50-60, 2002.	
OS		S. Weiss et al. "Multipotent CNS Stem Cells Are Present in the Adult Mammalian Spinal Cord and Ventricular Neuroaxis." The Journal of Neuroscience, December 1, 1996, 16(23) pp 7589-7609.	

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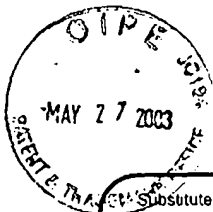
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		Examiner Name	Daniel M. Sullivan
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2		V. Tropepe et al. "Autonomous neural cell fate specification in mouse embryonic stem cells." Poster at Meeting of the Society for Neuroscience, Miami Beach, Florida, October 23-28, 1999.	

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